

[Designation of Document] Claims

[Claim 1]

An information processing apparatus for monitoring movement of users each carrying an information transmission/reception device into and out of a predetermined area and for controlling security operations for the predetermined area, characterized by comprising:

a communication unit for communicating with each of the plural information transmission/reception devices;

a position recognition unit for acquiring position information on the respective positions of the plural information transmission/reception devices;

a record storage unit for storing position record information showing a record of the position information for a predetermined period;

position judging means for judging whether each of the information transmission/reception devices is located within the predetermined area based on the position information;

first security command means for commanding setting or canceling of a security condition based on the judgment result given by the position judging means;

second security command means for receiving information on the requirement for setting or canceling of the security condition from the information transmission/reception devices through the communication unit, and for commanding setting or

canceling of the security condition; and

security condition selecting means for selecting either the command by the first security command means or the command by the second security command means based on the position record information.

[Claim 2]

An information processing apparatus according to claim 1, characterized in that:

personal behavior monitoring means for detecting movement of a person into and out of the predetermined area is further included; and

the security condition selecting means selects either of the commands based on the detection result obtained from the personal behavior monitoring means as well as the position record information.

[Claim 3]

An information processing apparatus according to claim 2, characterized in that:

the security condition selecting means selects the command given by the first security command means when it is determined that any of the information transmission/reception devices remains within the predetermined area for a predetermined period and that any other of the information transmission/reception devices moves from the inside of the predetermined area to the outside of the predetermined area

based on the position record information; and

the security condition selecting means selects the command given by the second security command means when it is determined that any of the information transmission/reception devices remains within the predetermined area for a predetermined period and that any other of the information transmission/reception devices moves from the outside of the predetermined area to the inside of the predetermined area based on the position record information.

[Claim 4]

An information processing apparatus according to claim 2, characterized in that:

the security condition selecting means includes response requiring means for requiring the information transmission/reception devices to give response inputted by the users of the information transmission/reception devices;

when it is determined that any of the information transmission/reception devices remains within the predetermined area for a predetermined period based on the position record information, the response requiring means requires the corresponding information transmission/reception device positioned within the predetermined area to give the input response; and

in the case where the input response is not given,

(1) the security condition selecting means selects the

command given by the first security command means when it is determined that the information transmission/reception devices remains within the predetermined area for the predetermined period and that any other of the information transmission/reception devices moves from the inside of the predetermined area to the outside of the predetermined area, and

(2) the security condition selecting means selects the command given by the second security command means when it is determined that the information transmission/reception devices remains within the predetermined area for the predetermined period and that any other of the information transmission/reception devices moves from the outside of the predetermined area to the inside of the predetermined area based on the position record information.

[Claim 5]

An information processing apparatus according any one of claims 1 through 4, characterized by further comprising security condition notifying means for giving the information on the command selected by the security condition selecting means to each of the plural information transmission/reception devices through the communication unit.

[Claim 6]

An information processing apparatus for setting or canceling a security condition within a predetermined security

area in accordance with positions of information transmission/reception devices carried by users who moves into and out of the predetermined area, characterized by comprising:

position judging means for receiving position information showing the respective positions of the information transmission/reception devices and for judging whether the information transmission/reception devices are located within the predetermined area;

a record storage unit for storing position record information showing records of the position information per a certain period; and

security condition selecting means for judging whether the information transmission/reception devices are positioned within the predetermined area for a predetermined period based on the position record information, and for determining that any of the information transmission/reception devices remaining within the predetermined area for the predetermined period is the information transmission/reception device having been left within the predetermined area.

[Claim 7]

An information processing apparatus according to claim 6, characterized in that:

personal behavior monitoring means for detecting movement of a person into and out of the predetermined area is further included; and

the security condition selecting means judges whether the information transmission/reception devices are left within the predetermined area based on the detection result obtained from the personal behavior monitoring means as well as the position record information.

[Claim 8]

An information processing apparatus according to claim 6 or 7, characterized by further comprising notifying means for providing the information on the information transmission/reception device determined as the device having been left within the predetermined area by the security condition selecting means to the information transmission/reception devices positioned out of the predetermined area.

[Claim 9]

An information processing apparatus according to any one of claims 6 through 8, characterized in that:

when at least one of the plural information transmission/reception devices positioned within the predetermined area moves from the inside of the predetermined area to the outside of the predetermined area, the security condition selecting means requires response from the information transmission/reception devices positioned within the predetermined area for the predetermined period and judges the information transmission/reception device from which no

response is given as the information transmission/reception device having been left behind.

[Claim 10]

An information processing apparatus according to claim 9, characterized in that:

when the security condition selecting means determines any of the information transmission/reception devices as the device having been left behind, the security condition selecting means does not cancel the security condition until receiving a command for canceling the security condition given from any other information transmission/reception device.

[Claim 11]

An information processing control system, comprising:  
the information processing apparatus according to any one of claims 1 through 10; and

information transmission/reception devices for communicating with the information processing apparatus.

[Claim 12]

A control method of an information processing apparatus for monitoring movement of users each carrying an information transmission/reception device into and out of a predetermined area and for controlling security operations for the predetermined area, characterized by comprising:

a communication step for communicating with each of the plural information transmission/reception devices;

a position recognition step for acquiring position information on the respective positions of the plural information transmission/reception devices;

a record storage step for storing position record information showing a record of the position information for a predetermined period;

a position judging step for judging whether each of the information transmission/reception devices is located within the predetermined area based on the position information;

a first security command step for commanding setting or canceling of a security condition based on the judgment result given by the position judging means;

a second security command step for receiving information on the requirement for setting or canceling of the security condition from the information transmission/reception devices through the communication unit, and for commanding setting or canceling of the security condition; and

a security condition selecting step for selecting either the command by the first security command step or the command by the second security command step based on the position record information.

[Claim 13]

A control program for the information processing apparatus according to any one of claims 1 through 10, under which program a computer operate to provide functions of the



respective means.

[Claim 14]

A recording medium on which the control program for the information processing apparatus according to claim 13 is recorded so that the control program can be read by a computer.